

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Develop a Successor to Existing Net Energy Metering Tariffs Pursuant to Public Utilities Code Section 2827.1, and to Address Other Issues Related to Net Energy Metering.

Rulemaking 14-07-002 (Filed July 10, 2014)

NOTICE OF EX PARTE COMMUNICATION BY THE ALLIANCE FOR SOLAR CHOICE, SOLAR ENERGY INDUSTRIES ASSOCIATION, CALIFORNIA SOLAR ENERGY INDUSTRIES ASSOCIATION AND VOTE SOLAR

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Counsel for The Alliance for Solar Choice

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Pursuant to Rule 8.4 of the Commission's Rules of Practice and Procedure, The Alliance for Solar Choice (TASC), the Solar Energy Industries Association (SEIA), the California Solar Energy Industries Association (CALSEIA) and Vote Solar (collectively, Joint Solar Parties) hereby give notice of the following *ex parte* communication.

On October 9, 2015, at approximately 2:30 p.m., Andy Schwartz, Director of Policy and Electricity Markets for SolarCity Corporation (SolarCity); Brad Heavner, Policy Director for CALSEIA; Tom Beach, Principal at Crossborder Energy; Susannah Churchill, West Coast Regional Director for Vote Solar; Kim Sanders, Senior Manager of Public Policy for Sunrun, Inc. (Sunrun); and Brandon Smithwood, California State Affairs Manager for SEIA, met with Ehren Seybert, Energy Advisor to Commissioner Peterman, at the Commission's headquarters at 505 Van Ness Avenue, San Francisco, California. The meeting was initiated by the Joint Solar Parties and lasted approximately thirty minutes.

During this meeting, Joint Solar Parties expressed concern about the adverse impact of new fixed monthly charges or fees on the growth of the distributed solar market, particularly in light of the termination of the investment tax credit (ITC) at the end of 2016 and the potential

market limiting impacts of flattening of tiers as the result of the Commission's residential rates design reform in Decision 15-07-001.

Joint Solar Parties also discussed how continued growth of rooftop solar depends on customer bill savings, which would be significantly eroded for many customers by new charges for net energy metering (NEM) proposed by the investor-owned utilities (IOUs). Joint Solar Parties further noted that the Office of Ratepayer Advocates' (ORA) successor tariff proposal would have impacts on adoption as severe as the IOUs' proposals. Joint Solar Parties discussed how Arizona's experience with new charges and fees illustrates that these policy changes can practically eliminate customer adoption of solar.

Joint Solar Parties noted that most of the changes to the NEM tariff proposed by other parties appear to be specific to residential customers because most non-residential customers are on different rates, many of which include demand charges. Joint Solar Parties stated that distributed solar's contribution to greenhouse gas (GHG) reduction is an avoided cost to customers because it avoids an equivalent amount of utility-scale renewable generation that would be necessary to meet the state's long-term GHG reduction goals.

At this meeting, Joint Solar Parties distributed two handouts (Attachments A and B) and six letters sent to President Picker from various organizations and the public urging the Commission to continue the current NEM program (Attachment C).

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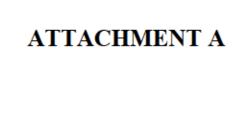
¹ Letter from Brightline Defense Project, et al. (Mar. 9, 2015); Letter from City of Modesto Councilmember John Gunderson, et al. (Jun. 24, 2015); Letter from the California Association Of School Business Officials, et al. (May 15, 2015); Letter from the Coalition for Adequate School Housing, et al. (April 22, 2015); Letter from California Interfaith Power & Light, et al. (Jul. 7, 2015); Letter from Northern Circle Indian Housing Authority, et al. (Sep. 3, 2015).
² Notices of ex parte communication were filed for these letters when they were originally sent.

To request a copy of this notice please contact Blake Elder at belder@kfwlaw.com.

/s/ Joseph F. Wiedman
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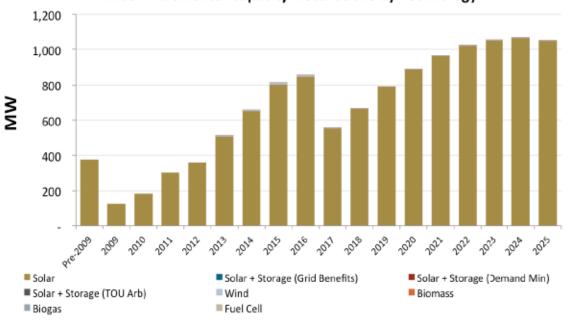
Counsel for The Alliance for Solar Choice

October 13, 2015



Forecasted Solar Adoption With Continuation of NEM

Annual Incremental Capacity Installations by Technology



Price Reduction in Base Case of Public Tool

	Price	Reduction
	(\$/W-	from Previous
	DC)	Year
2014	\$4.50	10%
2015	\$4.08	9%
2016	\$3.73	9%
2017	\$3.44	8%
2018	\$3.25	5%
2019	\$3.09	5%
2020	\$2.94	5%
2021	\$2.81	5%
2022	\$2.68	5%
2023	\$2.55	5%
2024	\$2.43	5%
2025	\$2.32	5%

ATTACHMENT B

PACIFIC GAS AND ELECTRIC COMPANY Net Energy Metering-Tariffs Rulemaking 14-07-002 Data Response

PG&E Data Request No.:	CalSEIA 008-01									
PG&E File Name:	NetEnergyMetering-Tariffs_DR_CalSEIA_008-Q01									
Request Date:	September 16, 2015	Requester DR No.:	008							
Date Sent:	September 30, 2015	Requesting Party:	California Solar Energy Industries Association							
PG&E Witness:	Various	Requester:	Brad Heavner							

The California Solar Energy Industries Association (CALSEIA) requests the following information relevant to Rulemaking 14-07-002 at the California Public Utilities Commission. Because this is a follow-up to the PG&E response to a data request from the Solar Energy Industries Association that provided insufficient information, CALSEIA requests that PG&E address this request on an expedited basis and produce the information as soon as possible.

Figure and table numbers refer to Appendix B of PG&E's opening comments on successor tariff proposals.

QUESTION 1

The following questions pertain to Figures 1 and 2.

- A. In which category of expenses are O&M costs included?
- B. In which category of expenses are customer acquisition costs included?
- C. Please list all of the types of expenses included in "Supply Chain, OH."
- D. How many hours do you estimate are required in direct labor?
- E. What hourly wage do you assume for direct labor?
- F. How many hours of labor do you estimate are required for "Engineering and PII"?
- G. What hourly wage do you assume for Engineering and PII?
- H. What factor do you use to scale up wages to include benefits?
- In which category of expenses is inverter replacement included?
- J. What is your cost estimate of inverter replacement?
- K. What sales tax rate do you assume?
- L. What percentage of modules do you estimate to be high-efficiency modules? What percentage do you expect to be American made?
- M. Do you assume that the lowest price hardware is always available to all solar providers and that all solar providers are able to achieve the same volume discount?
- N. Do you assume any amount of waste in balance of system materials?

O. What factor do you use to estimate the deviation of average installation conditions from the simplest installation case?

Answer 1

A. In which category of expenses are O&M costs included?

This is not included in the Figure 1 and 2 breakout as it is a separate input to the discounted cash flow analysis. It should be noted that O&M is not relevant to the provider of a purchased system, which is what the stacked bar chart is showing. However, it is relevant to determine the LCOE from a customer's perspective.

The bottom-up system cost analysis focuses only on the upfront costs of the major system components, not the variable costs that occur over the lifetime of the PV system. As stated previously, we do factor O&M costs into our discounted cash flow analysis to determine LCOE.

Using the O&M costs that were listed in our Appendix A, the NPV of Residential O&M is \$345/kW-DC and a NPV of Commercial O&M is \$300 with a discount rate of 6.96% over a 25 period.

- Sources for developing our O&M cost estimates are cited in this response to CALSEIA and include:
 - "U.S. Residential Photovoltaic (PV) System Prices, Q4 2013 Benchmarks: Cash Purchase, Fair Market Value, and Prepaid Lease Transaction Prices", National Renewable Energy Laboratory, October 2014
 - "Re-considering the economics of photovoltaic power", Renewable Energy, Volume 53, Pages 329-338, May 2013.
 - "SAPC PV Operations and Maintenance (PV O&M) Best Practices Guide: Considerations for Financial Managers and Industry Practitioners – INTERIM DELIVERABLE Draft Version 3.0", National Renewable Energy Laboratory.
 - "The U.S. Residential Operations and Maintenance Opportunity and Potential", MJ Shiao, SolarPlaza O&M North America, March 2014.

B. In which category of expenses are customer acquisition costs included?

Customer acquisition costs are included in the 'Supply Chain, OH (overhead)' category.

C. Please list all of the types of expenses included in "Supply Chain, OH."

Our methodology included benchmarking at the component level ("Module", "Inverter", "Supply Chain, OH") and not the subcomponent level. Substantial cost components for "Supply Chain, OH" include customer acquisition, distribution markups, and EPC costs.

- D. How many hours do you estimate are required in direct labor?
- E. What hourly wage do you assume for direct labor?
- F. How many hours of labor do you estimate are required for "Engineering and PII"?
- G. What hourly wage do you assume for Engineering and PII?
- H. What factor do you use to scale up wages to include benefits?

Our response to questions D-H is below:

Our methodology included benchmarking at the component level ("Module", "Inverter", "Supply Chain, OH") and not the subcomponent level.

I. In which category of expenses is inverter replacement included?

Inverter replacement is included in the O&M category. O&M expenses were not included in the cost breakdown in Figure 1 and 2 but as part of the discounted cash flow analysis.

J. What is your cost estimate of inverter replacement?

Navigant's benchmarking of O&M costs referenced at least three industry reports on O&M and focused on total O&M costs. 1,2,3,4 Inverter replacement costs were included in the overall O&M costs. The most common assumption includes one inverter replacement over the lifetime of the project.

^{1 &}quot;U.S. Residential Photovoltaic (PV) System Prices, Q4 2013 Benchmarks: Cash Purchase, Fair Market Value, and Prepaid Lease Transaction Prices", National Renewable Energy Laboratory, October 2014

² "Re-considering the economics of photovoltaic power", Renewable Energy, Volume 53, Pages 329-338, May 2013.

^{3 &}quot;SAPC PV Operations and Maintenance (PV O&M) Best Practices Guide: Considerations for Financial Managers and Industry Practitioners – INTERIM DELIVERABLE Draft Version 3.0", National Renewable Energy Laboratory.

^{4 &}quot;The U.S. Residential Operations and Maintenance Opportunity and Potential", MJ Shiao, SolarPlaza O&M North America, March 2014.

K. What sales tax rate do you assume?

Sales tax is not explicitly included as a line-item in the component cost breakdown displayed in figures 1 and 2. However, it is embedded within the overall system cost forecast and is in the range of 7.5-10%.

L. What percentage of modules do you estimate to be high-efficiency modules? What percentage do you expect to be American made?

Our methodology included benchmarking at the component level ("Module"), the forecast assumes a blend of module efficiencies and supplier sources (including manufacturing location).

To account for variation in the market place, Navigant developed low- and high-cost scenarios in addition to the mid-case. The main contributing factors for this range include rooftop characteristics, inverter selection, component quality (including module efficiency and manufacturing location), and the company's business model (vertically integrated vs. non-vertically integrated). The mid-case scenario takes into account standard modules while higher/lower efficiency and quality system components are taken into account in the high/low range.

M. Do you assume that the lowest price hardware is always available to all solar providers and that all solar providers are able to achieve the same volume discount?

Our forecast is weighted toward vertically integrated third-party providers. We did not specifically model smaller players but our assumption is that these latter installer would fit within our mid and high cost forecast scenarios while larger players fit in the mid and low cost forecast scenarios.

N. Do you assume any amount of waste in balance of system materials?

Our methodology included benchmarking at the component level ("Electrical BOS", "Structural BOS") and not the subcomponent level. Any amount of waste is captured in the balance of systems (BOS) component costs.

O. What factor do you use to estimate the deviation of average installation conditions from the simplest installation case?

Any deviation from average installation conditions is captured in the benchmarking at the component level (Electrical BOS", "Structural BOS", "Direct Labor", etc.).

Residential Rooftop Installed System Costs, 2012-2020 (\$Nominal, \$/W-AC)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Modules	1.118	0.912	0.883	0.795	0.73	0.683	0.645	0.612	0.585	0.561	0.54	0.52	0.502	0.485
Inverter	0.471	0.456	0.443	0.41	0.385	0.368	0.353	0.34	0.329	0.319	0.31	0.302	0.295	0.287
Electrical BOS	0.295	0.285	0.262	0.246	0.233	0.226	0.22	0.213	0.207	0.201	0.196	0.19	0.185	0.18
Structural BOS	0.271	0.252	0.231	0.217	0.205	0.199	0.194	0.188	0.183	0.177	0.172	0.168	0.163	0.159
Direct Labor	0.557	0.511	0.483	0.452	0.429	0.417	0.405	0.393	0.381	0.37	0.36	0.35	0.341	0.332
Engineering and PII	0.306	0.309	0.306	0.304	0.302	0.301	0.299	0.297	0.295	0.294	0.292	0.29	0.289	0.287
Supply Chain, OH	1.318	1.176	1.064	0.959	0.885	0.857	0.829	0.801	0.773	0.747	0.722	0.698	0.675	0.654

														2015-
					Ye	ear Over	Year De	crease						2025
Modules	18%	3%	10%	8%	6%	6%	5%	4%	4%	4%	4%	3%	3%	39%
Inverter	3%	3%	7%	6%	4%	4%	4%	3%	3%	3%	3%	2%	3%	30%
Electrical BOS	3%	8%	6%	5%	3%	3%	3%	3%	3%	2%	3%	3%	3%	27%
Structural BOS	7%	8%	6%	6%	3%	3%	3%	3%	3%	3%	2%	3%	2%	27%
Direct Labor	8%	5%	6%	5%	3%	3%	3%	3%	3%	3%	3%	3%	3%	27%
Engineering and PII	-1%	1%	1%	1%	0%	1%	1%	1%	0%	1%	1%	0%	1%	6%
Supply Chain, OH	11%	10%	10%	8%	3%	3%	3%	3%	3%	3%	3%	3%	3%	32%

Commercial Rooftop Installed System Costs, 2012-2020 (\$Nominal, \$/W-AC)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Modules	1.118	0.912	0.805	0.752	0.69	0.646	0.609	0.579	0.553	0.53	0.51	0.492	0.474	0.459
Inverter	0.342	0.296	0.233	0.225	0.211	0.201	0.193	0.186	0.18	0.175	0.17	0.165	0.161	0.157
Electrical BOS	0.295	0.285	0.238	0.222	0.211	0.205	0.199	0.193	0.187	0.182	0.177	0.172	0.167	0.163
Structural BOS	0.236	0.204	0.17	0.159	0.151	0.147	0.143	0.138	0.134	0.13	0.127	0.123	0.12	0.117
Direct Labor	0.398	0.345	0.289	0.281	0.267	0.259	0.252	0.244	0.237	0.23	0.224	0.218	0.212	0.206
Engineering and PII	0.012	0.01	0.016	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Supply Chain, OH	0.93	0.825	0.663	0.597	0.551	0.534	0.516	0.499	0.482	0.465	0.45	0.435	0.421	0.408

														2015-
					Ye	ear Over	Year De	crease						2025
Modules	18%	12%	7%	8%	6%	6%	5%	4%	4%	4%	4%	4%	3%	39%
Inverter	13%	21%	3%	6%	5%	4%	4%	3%	3%	3%	3%	2%	2%	30%
Electrical BOS	3%	16%	7%	5%	3%	3%	3%	3%	3%	3%	3%	3%	2%	27%
Structural BOS	14%	17%	6%	5%	3%	3%	3%	3%	3%	2%	3%	2%	2%	26%
Direct Labor	13%	16%	3%	5%	3%	3%	3%	3%	3%	3%	3%	3%	3%	27%
Engineering and PII	17%	-60%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Supply Chain, OH	11%	20%	10%	8%	3%	3%	3%	3%	4%	3%	3%	3%	3%	32%

PACIFIC GAS AND ELECTRIC COMPANY Net Energy Metering-Tariffs Rulemaking 14-07-002 Data Response

PG&E Data Request No.:	SEIA 002-01									
PG&E File Name:	NetEnergyMetering-Tariffs_DR_SEIA_002-Q01									
Request Date:	September 2, 2015	Requester DR No.:	002							
Date Sent:	September 11, 2015	Requesting Party:	Solar Energy Industries							
	_		Association							
PG&E Witness:	Various	Requester:	Thomas Beach							

SUBJECT: NEM 2.0 WORKPAPERS

QUESTION 1

Please provide a full set of workpapers for the comments on NEM 2.0 issues that PG&E filed on September 1, 2015. To the extent that the workpapers are spreadsheets, please provide the working copies of the spreadsheets, in Excel format with all formulas intact. In particular, please provide the following workpapers:

- The complete set of common Public Tool assumptions used in the comparisons in Table 4 on page 12.
- b. The energy price/avoided cost data from both the CAISO NP-15 market and the Final Public Tool that PG&E shows in Figures 2, 3, and 4. Please include the full set of Public Tool assumptions that PG&E used in making these Public Tool runs for 2015, 2020, and 2024, as well as the calculations for the percentage "overestimates" of avoided energy costs that PG&E cites on pages 31, 32, and 34 of its comments.
- The data used for Figure 7.
- d. The workpapers and data sources for the Navigant Study in Appendix A, including the data on circuit peaks and solar output used in Figure 5 of the PG&E comments. Please specify the source of the solar output data in this figure. Also please include the data and analysis of the "representative set of 20 feeders" (p. 1-2) that Navigant analyzed, and show how these feeders were selected.
- Workpapers and data sources for the Navigant solar market assessment in Appendix B.

To the extent that these workpapers are too large to e-mail, we would be happy to use the PG&E ftp site that we have used previously to obtain large files from PG&E in this case. Please contact Tom Beach at the above e-mail or phone number to arrange such a transfer.

ANSWER 1

- 1.a) Please see the attachment "NEM-Tariffs DR SEIA 002 Q01 A.xlsx".
- 1.b) [This response will follow separately].
- Please see the attachment "NEM-Tariffs_DR_SEIA_002_Q01_C.xlsx".
- 1.d) The method of selecting feeders is described in the report. Please see the attachments:

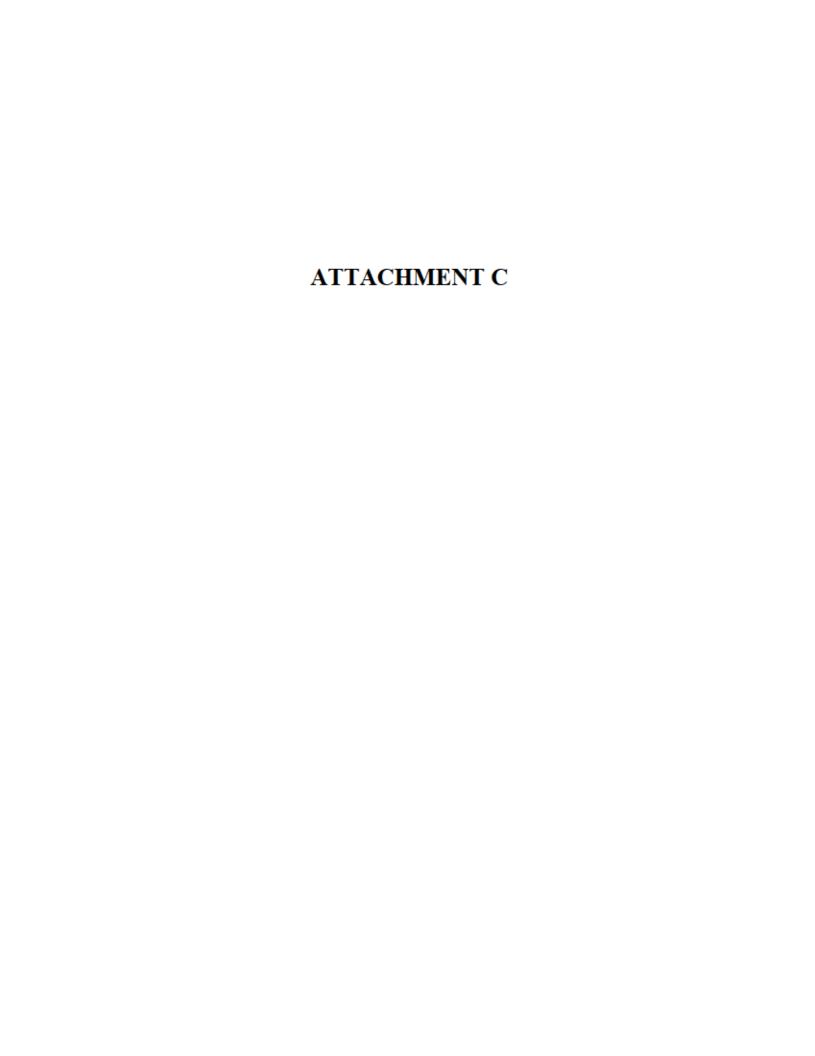
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"NEM-Tariffs_DR_SEIA_002_Q01_D_Attach01.xlsx",

"NEM-ariffs_DR_SEIA_002_Q01_D_Attach02.xlsx",

"NEM-Tariffs_DR_SEIA_002_Q01_D_Attach03.xlsx", and

"NEM-ariffs_DR_SEIA_002_Q01_D_Attach04.xlsx".
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1.e) Please see the attachments "NEM-Tariffs_DR_SEIA_002_Q01_E_Attach01.pdf", "NEM-Tariffs_DR_SEIA_002_Q01_E_Attach02.xlsx" and "NEM-Tariffs_DR_SEIA_002_Q01_E_Attach02.pdf".































March 9, 2015

President Michael Picker California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102

Dear Commissioner Picker,

Our organizations represent communities of color from across California that want a clean energy future. We are writing to express our support for policies that support the continued growth of rooftop solar, which creates local jobs, reduces air pollution that disproportionately impacts our communities, and enables families, schools, and businesses to manage and save on their energy bills. We urge the California Public

Utilities Commission (CPUC) to continue California's current net energy metering program beyond 2017 and to expand access to clean energy to more low-income ratepayers.

Net metering is a simple accounting mechanism for consumers to offset their monthly electricity bills by getting fair credit for producing their energy onsite. It allows solar customers to send excess energy from an onsite installation back to the grid to be used by neighboring homes and businesses. Neighboring customers pay the full retail rate for that excess clean, locally generated energy, and the solar customer gets a corresponding credit on her power bill. This simple and fair crediting arrangement is one of the most important state policy tools for empowering families, churches, schools and businesses to go solar, and it has been adopted in 44 states. Of critical interest to our organizations, net metering helps reduce the need for expensive, polluting fossil fuel infrastructure like natural gas peaker plants. This pollution reduction is particularly important for our communities of color, who have long borne a large share of the public health burden of dirty energy, and who are especially vulnerable to the impacts of climate change if we continue our dependence on fossil fuels, from rising sea levels and superstorms on the East Coast to record droughts and extreme temperatures in California and the Southwest.

For generations, communities of color have disproportionately borne the weight of the utilities' antiquated electricity production system. California is home to the five regions with the worst particle air pollution in the nation, all of which have populations that are majority Latino.¹ While Latinos, African-Americans and other communities of color endure most of the harmful impacts of traditional energy production, these communities reap few of the benefits. A study by the American Association of Blacks in Energy found that, while African-Americans spent \$41 billion on energy in 2009, only 1.1% of conventional energy jobs were held by Black professionals and a mere 0.01% of profits were earned by Black businesses.

We need to build a more just relationship between communities of color and energy, and net metering is a core tool for driving that transformation. In fact, in its 2013 Just Energy Policies report, the NAACP includes full retail net metering among its key policy recommendations for achieving economic and environmental justice within the energy sector.

We appreciate the leadership the CPUC has demonstrated in making California a major rooftop solar market. Our net metering policy has been key to facilitating the transition to self-generated and distributed clean energy, already enabling the development of more than a quarter million solar rooftops in California. Under 2013 legislation that was signed into law (AB 327), the current program will end for new

¹ The American Lung Association lists these regions as Fresno-Madera, Visalia-Portville-Hanford, Los Angeles-Long Beach, Bakersfield, and Modesto-Merced at http://www.stateoftheair.org/2014/city-rankings/most-polluted-cities.html.

customers by July 1, 2017, or when the utilities reach the program cap of 5% of utility aggregate customer peak demand. AB 327 requires the CPUC to determine this year how customers who go solar after current cap is reached will be compensated for power they export to the grid. As part of this future program design, AB 327 requires the CPUC to "include alternatives designed for [renewable distributed generation] growth among residential customers in disadvantaged communities."

California's net metering policy has helped leverage billions of dollars in private investment in the installation of solar energy systems across the state, and will save customers billions of dollars on their power bills. Thanks to net metering, solar businesses are creating economic opportunity in our communities as well. Today, the solar industry employs more than 54,000 Californians, more than 20% of whom are Latino. The rooftop solar industry also facilitates worker training programs so solar can be a pathway out of poverty for disadvantaged families. For example, workers of color represent the largest populations served by California's GoSolarSF Workforce Development program, with 40% African American and 22% Latino/Hispanic job placements.

A cleaner, more equitable approach to energy will be achieved by continuing to find ways to expand clean energy access, not by weakening effective and successful programs like net metering simply because they are opposed by the utilities. We urge the Commission to continue making net metering available to customers who go solar after the current cap is reached and to explore innovative additional approaches — including virtual net metering, community shared renewables, new tariffs and workforce development programs — to help more low-income families and communities of color participate in and benefit from California's growing clean energy economy.

Sincerely,

Arturo Carmona, Executive Director Presente.org

Dr. Luis Pacheco, MD, FAAFP

Joshua Arce, Executive Director Brightline Defense Project

Strela Cervas, Co-Coordinator California Environmental Justice Alliance

Miya Yoshitani, Executive Director Asian Pacific Environmental Network Kayla Race, Policy Advocate Environmental Health Coalition

Caroline Farrell, Executive Director Center on Race, Poverty and the Environment

Jeremy Hays, Executive Director Green for All

Antonio Diaz, Organizational Director People Organizing to Demand Environmental and Economic Rights

Orson Aguilar, Executive Director The Greenlining Institute

Adrianna Quintero, Executive Director Voces Verdes

Angel Luevano, Executive Director Todos Unidos

Argentina Luevano, Executive Director California Lulac Institute

Antonio González, President William C. Velasquez Institute

Byron Ramos Gudiel, Executive Director Communities for a Better Environment

Juan Avita, Executive Director Mexican American Political Association

CC: Governor Jerry Brown Commissioner Carla Peterman Commissioner Michael Florio Commissioner Catherine Sandoval Commissioner Liane Randolph June 24, 2015

President Michael Picker California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102

Dear President Picker,

As a group of more than 50 mayors, city councilmembers and other local officials from around the state, we urge your continued support for net metering, an important state policy facilitating the growth of rooftop solar in California. More rooftop solar creates local jobs, reduces the burden of energy costs on our economy, and builds a cleaner energy future for all Californians.

Solar power is taking hold across our state, from coastal metropolises to agricultural and industrial hubs in the Central Valley, bringing significant benefits to California. The solar industry employed over 54,000 Californians in 2014, a 16 percent increase from the year before.

California's rooftop solar market would not be where it is today without net metering, a simple and fair policy that provides a one to one credit on a customer bill for any power exported to the grid, and exempts small local projects from fees designed for larger generating facilities. Over the next 30 years, California schools and government entities that have already installed net metered rooftop solar will save more than \$2.5 billion in electricity costs.

It is essential to preserve and expand net metering in order to build on this momentum and bring more solar power to more of our communities. We urge the Commission to maintain net metering without excessive new fees, and expand opportunities for renters and disadvantaged communities to benefit from net metering. With your continued leadership, California can keep building on our impressive solar momentum, harnessing the power of the sun and Californians' ingenuity to power us to a clean energy future.

Sincerely,

Councilmember John Gunderson, City of Modesto
Councilmember Oliver Baines III, City of Fresno
Councilmember Mike Bonin, City of Los Angeles 11th District

Councilmember Paul Koretz, City of Los Angeles 5th District

Councilmember Dan Kalb, City of Oakland

Councilmember Max Anderson, City of Berkeley

Councilmember Lori Droste, City of Berkeley

Councilmember Kriss Worthington, City of Berkeley

Councilmember Laurie Capitelli, City of Berkeley

Councilmember Linda Maio, City of Berkeley

Councilmember Jesse Arreguin, City of Berkeley

Supervisor Scott Wiener, City and County of San Francisco

Supervisor Katy Tang, City and County of San Francisco

Councilmember Gordon Siebert, City of Morgan Hill

Councilmember Jim Prola, City of San Leadro

Councilmember Ash Kalra, City of San Jose

Councilmember Don Mosier, City of Del Mar

Councilmember Michael Kasperzak, City of Mountain View

Mayor Don Lane, City of Santa Cruz

Vice Mayor Cynthia Mathews, City of Santa Cruz

Mayor Helene Schneider, City of Santa Barbara

Councilmember Gregg Hart, City of Santa Barbara

Mayor Lisa Heebner, City of Solana Beach

Deputy Mayor Catherine Blakespear, City of Encinitas

Councilmember Lisa Shaffer, City of Encinitas

Mayor Jim Wood, City of Oceanside

Deputy Mayor Chuck Lowery, City of Oceanside

Councilmember Esther Sanchez, City of Oceanside

Councilmember Ted Winterer, City of Santa Monica

Supervisor Christopher Wright, Calaveras County

Supervisor Heidi Ann Ashcraft, Torrance County

Councilmember Tara Martin-Milius, City of Sunnyvale

El Dorado County Board of Supervisors

Mayor Michael Winkler, City of Arcata

Vice Mayor Paul Pitino, City of Arcata

Councilmember Susan Ornelas, City of Arcata

City of Eureka

Councilmember Nanette Barragan, City of Hermosa Beach

Councilmember Lori Liu, City of Brisbane

Councilmember Vinnie Bacon, City of Fremont

Supervisor Dave Roberts, San Diego County

Mayor Rick DeGolia, City of Atherton

Supervisor Estelle Fennell, Humboldt County

Supervisor Ryan Sundberg, Humboldt County

Mayor Albert Robles, City of Carson

CC: Governor Jerry Brown Commissioner Carla Peterman Commissioner Michael Florio Commissioner Catherine Sandoval Commissioner Liane Randolph May 15, 2015

Michael Picker, President California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102

Dear President Picker,

On behalf of the undersigned organizations representing school boards, administrators and school business officials, we are writing to urge your continued support for net metering, an important state policy facilitating the growth of customer-generated solar energy in California. More customer-generated solar creates local jobs, reduces the burden of energy costs on our economy, and builds a cleaner energy future for all Californians.

While the majority of customer-generated solar energy is used onsite, most of these solar systems produce some excess electricity that can be used to meet nearby power demand and reduce the need for expensive utility infrastructure. This is particularly true of schools, whose demand is significantly reduced during the summer when utilities experience the greatest need for the electricity that schools utilizing solar deliver to the grid. Net metering ensures that solar consumers receive fair retail credit on their monthly electricity bills for clean electricity that they deliver to the utility grid. It also exempts small local projects from fees designed for larger generating facilities. In place in 43 states, this simple crediting arrangement is one of the most important state policy tools for empowering local governments, families, schools and businesses to go solar.

In a study released last September, 963 schools in California were identified as having implemented solar. Since then we have crossed the 1,000 mark and many more are implementing solar using funds authorized under California's Proposition 39 program originally sponsored by Senate President pro Tem Kevin de León. As the associations representing California's school leaders, we know how important the cost savings produced by net metered solar are to our respective members. This is particularly true for the low wealth school districts located in the Central Valley, where budgets are particularly burdened by high electricity use, and solar cost savings are so important. Any significant changes in the net metering rules that reduce the benefits of solar would be a significant blow to the schools throughout the state.

California's solar market would not be where it is today without net metering, and continuing the program is essential to maintaining the hard won momentum we have achieved. Under 2013 legislation that was signed into law (AB 327), the

current program will end for new customers by July 1, 2017 or when the utilities reach the program cap of 5% of aggregate customer peak demand. AB 327 requires the CPUC to determine this year how customers who go solar after the current cap is reached will be compensated for power they export to the grid.

We urge the Commission to maintain net metering without excessive new fees, and expand opportunities for renters and disadvantaged communities to benefit from net metering. With your continued leadership, California can keep building on our impressive solar momentum, harnessing the power of customer choice and American ingenuity to power us to a clean energy future.

Sincerely,

Laura Preston, Legislative Advocate Association of California School

Administrators

Dennis Meyers, Asst. Exec. Director California School Boards Association

Jeffrey & Vara Jeffrey A. Vaca, Deputy Exec. Director California Association of School Business Officials

cc: Governor Edmund G. Brown, Jr.
Commissioner Carla Peterman
Commissioner Michael Florio
Commissioner Catherine Sandoval

Commissioner Liane Randolph







April 22, 2015

Michael Picker, President California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102

Dear President Picker:

On behalf of the Coalition for Adequate School Housing (C.A.S.H.), California's largest association of school district facility representatives; the Community College Facility Coalition (CCFC), a statewide coalition of community college districts and their private sector partners in the construction industry; and the School Energy Coalition (SEC), made up of K-14 schools and associates statewide focused on school energy projects, we are writing to urge your continued support for Net Energy Metering (NEM), an important state policy that allows local education agencies (LEA) seeking to better manage their electricity resources to choose solar projects.

As you know, solar energy projects can produce excess electricity that can be used to meet nearby power demand. This is particularly true of schools and community colleges that use significantly less power during the late afternoon and during the summer – precisely the time when local and regional utilities experience the greatest need for more electricity for their other energy customers.

NEM ensures that schools and community colleges that have shown leadership in managing their electricity resources by investing in solar projects will continue to receive fair retail credit on their monthly electricity bills for the clean electricity that they add to the utility grid. This simple crediting arrangement allows California schools and community colleges to more easily invest in this clean renewable power to the benefit of our students, families, teachers and taxpayers.

Under 2013 legislation that was signed into law (AB 327, Chapter 611 Statutes of 2013), the current program will end for new customers by July 1, 2017, or when the utilities reach the program cap of 5% of aggregate customer peak demand. AB 327 requires the CPUC to determine this year how solar customers will be compensated for the power they return to the grid after the cap is reached.







April 22, 2015 Page 2 of 2

We urge the Commission to maintain Net Energy Metering without excessive new fees that will make investments in solar unfeasible for schools budgeting for payback periods that could be lengthened if this occurred.

Any significant changes in the NEM rules that reduce the benefits of installing solar generation would be a serious blow to school and community college budgets throughout the state and could deter LEAs that are considering making these investments from going forward.

It is estimated that over 1,000 installations have already been made on school sites around the state (Brighter Future: A Study on Solar in U.S. Schools Report by the Solar Energy Industry Association - September 2014). We believe this number is sure to increase given the funding available under California's Proposition 39 program which is now moving into its third year of funding, focused on Local Education Agency (LEA) energy projects at school sites throughout the state.

Finally, we know that these projects create local jobs, will build a more diverse energy infrastructure easing pressure on the electricity grid, and will provide for a cleaner environment for all Californians, especially our students.

We appreciate your continued work on this issue. Feel free to contact us regarding this letter.

Sincerely,

Anna Ferrera

Executive Director

School Energy Coalition

Ian Padilla

Legislative Advocate

Coalition for Adequate School Housing

Rebekah Cearley

Retelech Cearly

Legislative Advocate

Community College Facility Coalition

cc: Governor Jerry Brown

Commissioner Carla Peterman

Commissioner Michael Florio

Commissioner Catherine Sandoval

Commissioner Liane Randolph













President Michael Picker California Public Utilities Commission 505 Van Ness Avenue San Francisco, California 94102

July 7, 2015

We, representatives of California faith organizations, are writing to urge your continued support for Net Metering, an important state policy facilitating the growth of rooftop solar in California. More rooftop solar creates local jobs, reduces the burden of energy costs on our economy, and builds a cleaner energy future for all Californians, especially those living near high-pollution energy sources.

Under AB 327 (Perea), signed into law in 2013, the current Net Metering program sunsets for new customers by July 1, 2017 or when the utilities reach the program cap of 5% of aggregate customer peak demand. By the end of 2015, AB 327 requires the CPUC to determine how customers who go solar after the current cap is reached will be compensated for the clean power they export to the grid.

In the development of the post-2017 program, we strongly encourage the CPUC to keep Net Metering in place that: one, allows for a one-to-one compensation for energy put back into the grid; two, allows for its expansion to serve a broader range of Californians, including low-income and disadvantaged communities; and three, avoids unfair new fees for solar customers.

There are numerous reasons for Net Metering to remain strong, including:

- A fair one kilowatt hour-to-one kilowatt hour credit on solar customers' bill
 for the clean energy they send back to the grid will continue to incentivize
 the growth of solar. Without this, the strong solar momentum that our state
 has enjoyed will be weakened;
- In terms of solar industry jobs, a recent report by The Solar Foundation stated that the solar industry employed 54,690 people in our state in 2014, up 7,500 from 2013. This shows a 15.8 percent growth in this industry since November 2013.

- And, <u>California solar employment grew 10 times faster</u> than overall employment in the same time period.¹ This growth is especially important in communities facing high rates of unemployment;
- A lower compensation will be unfair to less wealthy customers who have had to wait until the costs of solar installation dropped, especially working families and those in communities of color. With a lower compensation, solar will continue to be available just to the monetarily privileged;
- 4. A fair compensation rate will not merely attract more residential customers, but also houses of worship. As you know, the faith community is strong on efforts to reduce carbon pollution, including a growing number of congregations turning to solar to accomplish this, and to enact the principle of caring for all of Creation;
- 5. With a continued, strong Net Metering program, California will become less dependent on polluting forms of energy. While all citizens of our state face the accompanying health and economic effects of pollution, it is communities of color that have for far too long borne a disproportionate amount of these effects;
- 6. We are at a crucial time in terms of a changing climate. Numerous recent reports have shown that, without a rapid shift to renewable, non-polluting sources of energy, we will continue to face destructive, costly weather events, including regional climate change events in California.

While the major state utilities (PG&E, SDG&E, and Edison) are advocating for much less than a one-to-one compensation for customers who go solar in 2017 and beyond, we urge you not to comply with their wishes. When the CPUC maintains fair compensation for solar customers, these utilities will step up, innovate and evolve their business model, so that they can better profit from the growth of rooftop solar instead of trying to hinder its progress.

As faith organizations devoted to serving the good of our communities, we share many principles, including the protection of lives and livelihoods, especially the most vulnerable among us; working for a strong, just society in which all can participate; and protection of all of Creation. The rapid switch to clean energy – and its accompanying health and economic benefits – is one action that helps to fulfill these principles. As such, we strongly urge the CPUC to keep a strong Net Metering program in place.

We look forward to following this issue closely.

Sincerely,

Susan Stephenson, Executive Director California Interfaith Power & Light

Mark Carlson, Executive Director Lutheran Office of Public Policy

Shakeel Syed, Executive Director Islamic Center of Southern California

Rev. Dr. Timothy Murphy, Executive Director Progressive Christians Uniting

Katelyn Roedner Sutter, Environmental Justice Program Director Catholic Charities, Diocese of Stockton

Trav Williams, President Orange County Interfaith Coalition for the Environment

cc: Governor Jerry Brown
Commissioner Carla Peterman
Commissioner Michael Florio
Commissioner Catherine Sandoval
Commissioner Liane Randolph

1http://solartribune.com/california-leads-in-solar-jobs/ - accessed April 1, 2015



NORTHERN CIRCLE Indian Housing Authority

694 Pinoleville Dr. • Ukiah, Calif. 95482 • 707-468-1336 Fax 707-468-5615

President Michael Picker California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102

Dear President Picker,

On behalf of the tribal members we represent, we write to urge your continued support for net metering, an important state policy facilitating the growth of residential solar in California. More residential solar creates local jobs, reduces the burden of energy costs on our economy, and builds a cleaner energy future for all Californians.

We have been pleased to work in recent years with GRID Alternatives and the Single-family Affordable Solar Homes (SASH) Program to bring solar energy and job training opportunities to our Native American community. The SASH Program has provided opportunities for our tribe's members to receive money-saving energy efficiency services and solar electrical systems, and learn first-hand about solar technologies. The solar electrical systems save low-income tribal families money each month on their utility costs, and have helped our tribe work toward its environmental and clean energy goals, and increased residents' pride in our reservation. The solar electric systems have been able to benefit our tribal members financially because of the strong net energy metering policy in California. Tribal members get compensated for the energy they produce each month and are incentivized to use only what they need.

California's solar market would not be where it is today without net metering, and our tribal members would not be able to benefit as much from solar without the net energy metering structure.

We urge the Commission to maintain net metering without excessive new fees, and to expand opportunities for renters and disadvantaged communities to benefit from net metering. With your continued leadership, California can keep building on our impressive solar momentum, harnessing the power of customer choice and American ingenuity to power us to a clean energy future.

Sincerely,

Darrlene Tooley, Executive Director, Northern Circle Indian Housing Authority

Marvin Hess, Tribal Administrator Bishop Paiute Tribe Thomas Rodriguez, Tribal Chairman La Jolla Band of Luiseño Indians

Charles Wood, Tribal Chairman Chemehuevi Indian Tribe

Robert Vance, Housing Director; and George Gholson, Tribal Chairman Timbisha Shoshone Tribe

Edwin Smith, EPA Director Bear River Band of Rohnerville Rancheria

Earl Brown, Executive Director Yurok Indian Housing Authority

Reno Keoni Franklin, Tribal Chairman, Redwood Valley Band of Pomo Indians

cc: Governor Jerry Brown Commissioner Carla Peterman Commissioner Michael Florio Commissioner Catherine Sandoval Commissioner Liane Randolph